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Agricultural Memorandum No 454

Return to Capacity; Wheat and Fallow Acreage - SOUTHWEST

L P Smith

Mean return dates were found by taking sample stations for each part of the region (as per Tech. Bull 24) and

Weighting w.r.t. total cereal acreage - Rc (where S1 = 1)
Weighting w.r.t. wheat acreage - Rw

and these were compared to the fallow acreage (F) and the wheat acreage (W) respectively (in units of 1000 acres)

Results

Year	Rc	F	Rw	W	Estimated W
1961	2.7	31.9	2.3	118.5	128
1959	3.6	37.7	3.2	124.4	112
1968	4.5	25.6	4.5	193.2	205
1967	5.9	27.5	6.0	209.6	200
1966	6.1	31.3	6.0	196.7	190
1964	7.0	20.7	6.9	162.3	174
1963	8.1	24.4	7.3	136.7	-
1960	8.5	20.8	9.0	134.5	141
1962	8.9	17.6	9.1	159.8	161
1965	10.7	17.7	11.0	209.1	197
				Mean Error	9.9 (6%)

The correlation between log Rc and log F is -0.83

The formula used to estimate the wheat acreage is

$$100 \cdot 6 + 3.4\ Rw + 9.9\ n$$

where n is the number of years after 1959.

1963 was omitted owing to heavy winter snow. As spring conditions have been ignored and the total of spring sown wheat is unknown the fit is not unsatisfactory.

The values of Rw in 1969 and 1970 were 2.2 and 9.6 giving estimates:-

	Wheat acreage
June 1969	207,080
June 1970	242,140

Any comments or suggestions on this paper should be referred to the author.

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